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ABSTRACT

One of 52 theoretical papers on school crime and its relation to poverty, this chapter presents theory and data that indicate that alternative educational programs with certain characteristics are a promising method for the prevention and treatment of delinquent behavior. The theory proposes that delinquent behavior is a manifestation of a psychological defense against threats to self-esteem, much of the threat originating in experiences at school. Individualized educational programs that maximize success experiences and provide for more personal teacher-student relationships have the potential to reduce the provocations for and strengthen the controls against delinquency. (Author/MLF)

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SCHOLASTIC EXPERIENCES, SELF-ESTEEM, AND DELINQUENT BEHAVIOR: A THEORY FOR ALTERNATIVE SCHOOLS*

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ABSTRACT

Theory and data are presented which indicate that alternative educational programs with certain characteristics are a promising method for the prevention and treatment of delinquent behavior. The theory proposes that delinquent behavior is a manifestation of a psychological defense against threats to self-esteem, much of the threat originating in experiences at school. Individualized educational programs that maximize success experiences and provide for more personal teacher-student relationships have the potential to reduce the provocations for and strengthen the controls against delinquency.

Introduction

A major conclusion of this paper is that the schools as an institution might have the capacity to prevent and reduce delinquency, independently from other institutions in their community and society. For, I will argue, the school may itself be in control of major social psychological forces that generate delinquency and can change the direction of these forces. While it is true that other social institutions play some part in producing delinquency -- the family, the economy, the juvenile justice system, the mass media, and, to a small degree, the peer group -- the schools may effectively grasp the opportunity to implement ameliorative programs. This paper comes to this conclusion by way of placing the schools as an institution in a more general theory of delinquent behavior, documenting that theory with available data, and deriving from that theory an educational program, with certain specified characteristics, that will prevent and reduce delinquency, again providing evidence that such a program is likely to work.

A Partial Theory of Delinquent Behavior

The focal phenomenon of the theory is delinquent behavior -- the deliberate commission by a juvenile of

an act he/she knows violates the juvenile code in such a way that if he/she is caught, he/she is liable to judicial response. We will elaborate only briefly on this definition here because we have written about it in some detail elsewhere (Gold, 1970; Gold & Mann, 1972).

Suffice it to point out now that delinquent behavior differs a great deal from juvenile delinquency, that is, officially recorded alleged offenses by juveniles. Delinquent behavior is almost 10 times greater in volume, and is distributed differently in important respects in the population, e.g., evenly among juveniles from all social classes (Gold, 1970). The methods by which it is measured are also quite different; self-reports are the most appropriate, but the reports of direct observers, preferably peers but also teachers and others who see young people often and closely, often provide good data. The records of delinquent behavior begin to become invalid precisely at that point where the definition of juvenile delinquency enters, that is, where observations on which they are based have been made by the police. These official records are least distorted when they reflect contacts during the commission of delinquent acts on the street, in the schools, etc., and become increasingly more invalid as the discretionary authority of the police,

juvenile judges, court workers, and others affect the record. But even street contacts with the police have been shown to be subject to some discretion (Piliavin & Briar, 1964), so they too must be regarded cautiously as observations of delinquent behavior. Therefore, to test the theory, I will use self-report data and the observations of people other than agents of the juvenile justice system whenever possible. I assume that delinquent behavior itself, rather than juvenile delinquency as defined above, constitutes both the theoretical and the social problem at issue. I will occasionally use the term delinquency from here on to mean delinquent behavior.

I do not intend to present a comprehensive theory of delinquent behavior in this article, even if I were able to. Rather, I will present only that part of a more complete theory that involves the institution of the schools. Determinants that reside in other institutions such as the family, in the culture, in the life histories of individuals, and elsewhere, are beyond the purview of this article, important as they are. I will argue that the function of the school in determining delinquent behavior may be treated independently in this way, for both theoretical and practical purposes.

The point is that this part of the theory does not necessarily have to take into account other determinants because the schools are a determinant in their own right, and that, practically speaking, the schools can mount an ameliorative effort that could prove effective regardless of other influences.

Short and Strodtbeck (1965) made this point in drawing implications from their study of peer processes in delinquent behavior:

> The old message that delinquency begins in the home is more disavowed than reaffirmed by our analysis. Insofar as it is present, it emerges in a new form. We firmly believe that need dispositions which are requited by gang membership arise in the interactions between the lack of preparation for school-type achievement in the home and the absence of access to alternative adaptations to failure in the schools.

The theory is social psychological in the sense that its object is to explain the behavior of individuals -- in this case, their disruptive and delinquent behavior -- by means of psychological variables -- certain attitudes and motives -- which are shaped mainly by conditions in their social environment -- in this case, the ordinary practices of their schools.

There are two terms central to the theory: provocations and controls.

By provocations I mean the experiences that motivate an individual to be disruptive and delinquent.

By controls I mean the goals and values that constrain an individual from being disruptive and delinquent.

The theory posits that delinquent behavior is an ego defense, in the psychoanalytic meaning of that term (Freud, 1946), against the external realities that treaten a young person's self-esteem. It is important to note that the defense acts against the recognition of an external threat rather than against an internal conflictful impluse, because the theory will come finally to prescribe an external remedy -- an institutional change -- rather than a probing, psychodynamic therapy that aims to alter internal states and ignores the environment. Delinquent behavior is conceptualized as a form of ego restriction, which is in turn a refined member of that family of defenses based on primitive denial (Freud, 1946; Jacobson, 1957). It is a way of avoiding situations which endanger self-esteem and of engaging in experiences that promise a form of self-enhancement. The theory assumes that a derogated self-

image is naturally aversive and that it will set in motion psychic forces to dispel it. Delinquent behavior is interpreted as a manifestation of these forces.

The reality particularly relevant to the present discussion is failure in playing important social roles, and the role of student is of course particularly germane. No other role incumbent upon young people in our society is so fraught with failure as studenthood (Glasser, 1969). Insofar as any role entails clear and pressing standards for achievement, it creates the conditions for success and failure. No other role of youth is as infused as studenthood with such standards, and the obligation to be motivated to meet them. Achievement stands at the core of the student role. Constant testing, grading, and comparing are indicative of the salience of striving. Experiences of success and failure pervade scholastic life, especially at the secondary school level. In no other setting -- at home, on the job, among friends -- are the standards of achievement so clear or the means to attain them so narrow. The only adolescent role comparable in this respect to being a student is being an athlete, and in contemporary American society the athlete role during adolescence is so closely

tied to the schools as an institution that it may be said to be a role within it (Coleman, 1961).

Provocation

The theory of delinquent behavior as a defense is linked to the concept of the schools as an institution through the hypothesis that a major provocation for delinquent behavior is incompetence in the role of student and its adjunct roles in the school. The youth falls short of his/her aspirations for scholastic achievement (usually indicated by many failing grades, although some failure-experiencing individuals may have mediocre but passing or even respectable grades). Furthermore, the youth experiences few if any other successes in the scholastic setting: he or she is not particularly popular or well known among classmates and has no close friends; he/she does not excel in any extra-curricular areas, such as athletics; and he/she has no special interest or hobby in school or elsewhere at which he/she can demonstrate notable competence. The consequence of these experiences is a derogated self-image, a feeling that one is not worth much and will not ever be.

The theory posits that delinquent behavior, and particularly disruptive behavior in school, is a defense

against self-derogation. Such behavior consists of attacks on school property and personnel, including fellow students; theft; dealing in drugs; noisy and other distracting behavior; rule breaking, such as smoking; and truancy. Disruptive behavior in school is especially appropriate as a way of coping with low self-esteem for several reasons. First, inasmuch as the derogation is generated by scholastic experiences, the behavior occurs at the time and in the place where the pain is felt. Second, the appreciative audience that enhances its effectiveness as a coping mechanism is more readily found at school than elsewhere. This point deserves some elaboration.

Disruptive, delinquent behavior is conceived to be a public performance, a mode of self-presentation. It is hypothesized that such behavior is motivated by a desire to enhance the self by the approval of others. (Compare this to a concept of such behavior as aggression, either instinctual or in reaction to frustration.) Disruptive behavior lends itself fairly easily to the purpose since it is not difficult to accomplish if one "has guts" (that is, if one is sufficiently provoked). In the school setting gathers a

ready audience composed of peers with similar problems who will most appreciate the performance. Those peers can be identified at school, and they will not only observe and applaud but will often participate as well. And there is typically enough undercurrent of adolescent negativity toward school even among those who would not behave badly themselves to provide an even wider audience. This conjunction of elements at school makes it a likely stage for a disruptive, self-aggrandizing performance.

A third reason for coping by means of disruptive and delinquent behavior lies in the message it conveys. At the same time that it functions as a performance, it is also a declaration of revolt against the criteria by which the person has come to regard himself as a failure. It defies the exercise of authority both over deportment and over standards for scholastic achievement, devalues the devaluations, and rejects the devaluaters (Cohen, 1955).

Control

Not every youth who is failing as a student finds disruptive delinquent behavior an appropriate way to rescue his or her self-esteem. The element of control

must be taken into account. Some youngsters are so closely attached to people who would disapprove of such behavior that the appreciation of disruption by a peer audience is offset. Parents of course are the primary sources of such control. Where there are warm parent-adolescent relationships that might be ruptured, where there is love that might be withdrawn, where there are affectional, material, and other resources that might be withheld, disruptive behavior bears more costs than benefits and therefore is not displayed.

Similarly, close relationships with others who would disapprove of such behavior, including teachers, may also provide constraints. But adolescents in American society rarely develop close relationships with adults other than their parents, and even more rarely develop them with teachers.

When strong controls effectively counter strong provocations to be disruptive, then delinquency is not a strong defense against a derogated self-image. Unable to cope by engaging in disruptive and delinquent behavior, a youth is likely to feel a great deal of anxiety or may take flight from reality, depending on his/her other coping skills and the other forces in his/her life. That

is, alternatives to disruptive and delinquent behavior may be various forms of mental illness. Thus, the theory generates a hypothesis that the intensity (frequency and seriousness) of delinquent behavior will vary inversely with symptoms of mental illness, particularly pervasive anxiety.

Evidence

Evidence that gives credence to the theoretical model can be found scattered in the social science literature. No one study provides data on all the hypothetical links. So we must draw upon the literature piecemeal, as it casts some light on one hypothetical link or another, or as it demonstrates the effect of one or another component of an alternative school program.

Scholastic Achievement and Self-Esteem

Results of research leave little doubt that better students tend to have higher self-esteem. Studies employing a variety of measures of both scholastic competence and self-esteem have demonstrated this relationship.

Bachman (1970) employed a combination of items from Rosenberg's (1965) and from Cobb, Brooks, Kasl, and Connelly's (1966) batteries to measure the self-esteem of a representative sample of 10th-grade American boys. The self-esteem scale is a transparent measure; almost all respondents would realize its intent. It includes items such as "I take a positive attitude toward myself," "I feel I do not have much to be proud of," and "I am a useful guy to have around," and the distribution of responses is positively skewed. Boys' responses correlated ($r = .23$, $p < .01$) with their reports of recent school grades.

Prendergast and Binder administered the Tennessee Self-Concept Scale (Fitts, 1965) and the Rosenberg Self-Esteem Scale to 366 urban ninth graders and correlated their scores with measures of scholastic proficiency obtained from the Houghton Miflin Test of Academic Progress. Self-esteem as measured by the Tennessee Self-Concept Scale was unusually well correlated with reading proficiency (.98!), and related moderately well (.32) with math proficiency. The Rosenberg Self-Esteem score was correlated with reading and math scores at .35 and .57, respectively.

Epps (1969) measured scholastic achievement and self-esteem among Black students in eight urban high

schools. Rosenberg's index of self-esteem was correlated with the students' total scores on the School and College Abilities Test (SCAT) in the four nothern high schools, on the Otis IQ Test in the four southern high schools, and with their grades in all the schools. The correlation with self-esteem was $\underline{r}$ = .24 for test scores and $\underline{r}$ = .25 for grades.

Studies of upper elementary school pupils correlating the California Achievement Test with the Tennessee Self-Concept Scale (Williams & Cole, 1968), Bills' Index of Adjustment (Bledsoe, 1964), or an adaptation of the Stephenson Q-sort technique (Bennett, n.d.) all yielded positive correlations between self-esteem and scholastic achievement, mainly in the .30s and .40s.

Scholastic Achievement and Disruptive Behavior

One must be aware of the inadequacy of most of the data on the relationship between scholastic achievement and disruptive, delinquent behavior. Research on delinquency, for a long time and for the most part still today, has relied on official records of apprehended, adjudicated, and sometimes incarcerated youth for indirect measures of the degree of delinquent behavior. But a relationship of delinquency to scholastic achievement is built into

the data by the process of creating official records; for it is likely that an apprehended youth will more often acquire an official record if an inquiry determines that he or she is doing poorly in school. Whether the actual commission of delinquent acts is related to scholastic achievement will, therefore, not be conclusively demonstrated by official data. For this reason, we will review here studies that measure delinquent behavior by means of unofficial observations and self-reports.

Feldhusen, Thurston, and Benning (1967) had teachers in elementary schools in a semirural Wisconsin county nominate two boys and two girls in their classes who demonstrated exemplary behavior (e.g., "industrious," "productive") and an equal number who characteristically displayed disruptive behavior (e.g., "disrupts class," "bullies others," "tardy or absent without excuse"). A sample of 256 subjects for intensive study were then chosen at random from each sex-by-grade (third and sixth) by behavior (aggressive-disruptive and approved) category. The researchers found that disruptive pupils scored significantly lower in the reading and arithmetic sections of the Sequential Tests of Education Progress (STEP) than did the "good citizens," and that the

difference between categories of nominees was greater at the sixth- than at the third-grade level. Follow-up studies five and eight years later by the same authors (1971) showed that the difference in scholastic achievement persisted through high school.

Results similar to those reported by Feldhusen et al. emerged from a study by Swift and Spivack (1968), who had teachers in 13 urban elementary schools rate 809 pupils in grades kindergarten through sixth on the degree to which each pupil displayed "active disruptive behavior." Correlations of grades in arithmetic and reading with the behavior ratings ranged from -.20 to -.40.

Weinberg (1964) asked seventh- and eighth-grade teachers to identify the boys in their classes who (a) "contributed most to the solidarity of the classroom group by their outstanding efforts, excellent cooperation, demonstration of leadership abilities, and general all around willingness to help" or who (b) "contributed most to the disunity or conflict present in the classroom through disobedience, lack of effort, and general non-conformity to school and classroom expectations." Teachers' nominations were checked with principals, vice-

principals, office staff, and school records in order to assemble two categories of students that were clearly quite different in their reputations. Then students' STEP scores for reading, writing, and arithmetic were compared, and the disruptive boys' achievement was found to be markedly lower ($p < .001$). This was true among sons of both white-collar and blue-collar workers.

A study of English schoolboys attests to the same negative relationship between scholastic achievement and disruptive, delinquent behavior. Farrington and West (1971) correlated the frequency of self-reported delinquent behavior of 411 working-class, urban normal school boys with their teachers' ratings of their class ranks on scholastic achievement and with their streams in school (e.g., grammar school or top streams in a comprehensive school represented the highest achievement; and the lowest stream in a secondary modern or special school, the lowest achievement). Only 4 percent of the top 25 percent most delinquent boys were in the highest categories of scholastic achievement, while 22 percent were in the lowest categories. The boys' standardized reading scores demonstrated the same relationship.

In a study of a representative sample of American boys and girls, the present author collected data on

self-reported delinquent behavior and on self-reported grades in school. A reliable negative relationship ($p < .01$) was found among the 15- through 18-year-olds, but not among the 11- through 14-year-olds.

In sum, then, several studies employing different measures have established a correlation between disruptive and/or delinquent behavior in school or the community and scholastic achievement. Of course, correlation is not causation; the relationship supports the hypothesis of a causal link between the two but does not confirm it. The idea that scholastic failure causes disruptive and delinquent behavior would be more certainly confirmed by an experiment in which scholastic achievement is raised and disruptive, delinquent behavior subsequently declines.

Self-Esteem and Delinquent Behavior

A study by Gold and Mann (1972) makes a distinction in the concept of self-esteem that is especially relevant to the concept of delinquency as a psychological defense. In this study, measures were taken of both conscious and unconscious levels of self-esteem. Conscious self-esteem was measured by the self vs. ideal self discrepancy method: each subject rated 14 bipolar items (e.g.,

"slow-quick," "tough-mild," "smooth-rough") on a seven-point scale for both "myself" and "myself as I would like to be now." The discrepancy scores between identical items under the two different headings were summed disregarding their direction. A high sum--large discrepancy--was taken as indicative of low conscious self-esteem. In contrast, self-esteem at a relatively unconscious level was measured by a method adapted from Ziller, Hagey, Smith, and Long (1969). Each respondent was presented a vertical array of eight circles and instructed to write "me" in the circle in which he felt he belonged; the respondent's unconscious self-esteem was determined by the circle in which he wrote "me," the topmost circle representing the highest self-esteem.

Among eighth-grade boys from a lower-class, rural Michigan junior high school, no significant difference in conscious self-esteem was found between highly delinquent high achievers and highly delinquent low achievers, although there was a difference ($p < .10$) between high achievers and low achievers among boys who were not very delinquent. But the low achievers who were highly delinquent registered the lowest unconscious self-esteem, significantly different from the high achievers' ($p < .002$).

These data were interpreted to mean that delinquent behavior served a defensive function, elevating the boys' conscious but not their unconscious level of self-esteem.

Mann (1976) has replicated this finding among 15- through 18- year-old boys representative of all the boys in that age group residing in the contiguous 48 states. His data are from the National Survey of Youth '72 (Gold & Reimer, 1975), which measured delinquent behavior by means of the self-reports of adolescents in confidential interviews. Measures of conscious and unconscious self-esteem were similar to those in the above mentioned Gold and Mann study, except that the measure of unconscious self-esteem used followed Ziller et al.'s (1969) original procedure more closely; youngsters were asked not only to place themselves somewhere in the array of circles but also to place someone "who is happy," "successful," "unhappy," etc. Mann found that 15- to 18-year-old boys whose unconscious self-esteem was markedly lower than their conscious self-esteem also confessed to significantly more delinquent acts than other boys did. This was not true among younger adolescent boys.

Another study points to the causal relationship

between self-esteem and delinquent behavior (Massimo & Shore, 1963). Twenty 15- to 17-year-old boys were identified by their histories of antisocial behavior, repeated truancy, chronic problems of school adjustment, failing grades, aggressive acts, and reputations with attendance officers, courts, or police; and they were at the point of leaving school, voluntarily or involuntarily. Ten boys were selected at random from these twenty and offered the services of a clinician from the Judge Baker Child Guidance Clinic, primarily to help them find employment. They received comprehensive services for 10 months, while the other ten boys did not. At the end of that time, only three of the ten boys in treatment had been placed on juvenile probation, compared to seven of the control group ($p < .10$).

To measure self-esteem in this study, a clinical psychologist rated pairs of stories elicited by Thematic Apperception Test cards. Five stories were told at the beginning and five at the end of treatment. The ratings were done in a triple-blind design, the rater not knowing which story was the first one of a pair, which boys told which pairs of stories, or which pairs were told by the same person. Improvement in self-esteem was more

frequently observed among the boys in treatment ($p < .01$). Its causal relationship to changes in delinquent behavior is suggested by the authors: "The results indicate that the first area of change is in attitude toward self" (p. 641).

(It is also notable that the Metropolitan Achievement Test scores of the boys in treatment improved in reading, vocabulary, and arithmetic, while the scores of the control boys declined ($p < .01$). This occurred even though no special attempt was made to get the boys in treatment back into school or to tutor them.)

A follow-up study (Shore & Massimo, 1966) testified to the importance of self-esteem in the change process:

> Of great interest is that comparison of the follow-up stories with those given immediately after treatment indicated the same course of change as in the before and after treatment comparisons. That is, self-image changed most, control of agression next, and attitude toward authority least. No boy showed a change in control of aggression who had not first changed in self-image, and no changes were shown in attitude toward authority unless there were changes in the other two areas. (p. 612)

Kaplan (1976) has reported a predictive study that also causally links low self-esteem to delinquent and disruptive behavior. Over 4,000 junior high school

students were asked on a questionnaire about their attitudes toward themselves (e.g., "On the whole, I am satisfied with myself," and "I feel I do not have much to be proud of") and about their deviant behavior in the previous year (e.g., "Sold narcotic drugs," "Cheated on exams"). These data were collected at two time periods, about a year apart. For each of the 22 deviant acts in the questionnaire, Kaplan identified those students who had denied doing it at all on the earlier administration; he divided these students into those who had reported high, medium, and low self-esteem. Then he compared their later reports of deviant acts. As Kaplan had hypothesized, more of those who had given evidence of low self-esteem at the start of the year reported having committed each of the 22 deviant acts during the ensuing year than did those who had indicated high self-esteem.

Finally, with a still different measure and research strategy, Aronson and Mettee (1968) demonstrated how low self-esteem can generate delinquency. The researchers created differential levels of self-esteem among women enrolled in an introductory psychology course by giving them randomly predetermined reports of their profiles on a personality test they had just taken. A subject

was told either that her profile indicated that she had "a stable personality and is not given to pronounced mood fluctuations of excitement or depression" or that her profile showed that she had a "rather unstable personality and is given to...," etc. Following this experimental induction, the women participated in a blackjack game during which an apparently malfunctioning card-dealing appartus gave them what they thought was an unobtrusive opportunity to cheat. Significantly more of the women whose self-esteem was threatened cheated ($p < .03$).

Thus, several studies support the hypothesis that low self-esteem leads to delinquent behavior.

Scholastic Achievement and Anxiety

Research on the relationship of scholastic achievement to anxiety consistently demonstrates a negative correlation between them, but at least two qualifications of that general finding should be noted. First, the hypothesis typically tested is that anxiety causes low scholastic achievement, whereas we have posited that the low achievement creates the anxiety. While these hypotheses are converse, they are not contradictory; that is, the relationship between achievement and anxiety may be

mutual and cyclical so that both hypotheses are true. However, the theoretical approach taken here emphasizes the one direction rather than the other.

Second, the hypothesis that anxiety interferes with scholastic proficiency has led many researchers to focus on anxiety, particularly over scholastic matters, the Test Anxiety Scale for Children (TASC) (Sarason, Davidson, Lighthall, Waite, & Ruebush, 1960) being the foremost example. Our own interest in self-esteem, provocation, and control as mediators of the effects of academic achievement on the level of anxiety has led us to consider the effects of general anxiety, rather than to test anxiety specifically.

Feldhusen, Denny, and Condon (1965) measured the anxiety of seventh and eighth graders with the Sarason General Anxiety Scale for Children (Sarason et al., 1960), a set of items that inquires into fears and worries (e.g., "When you are away from home, do you worry about what might be happening at home?"; "Are you afraid of things like snakes?"). The more anxious pupils scored lower on both SCAT and STEP, the negative correlations ranging in the .20s and .30s and being generally stronger among boys than girls.

Entwistle and Cunningham (1968) tested almost 3,000

Scots boys and girls 12 to 13 years old with the Junior Eysenck Personality Inventory and the Moray House Verbal Reasoning Test 72. They found a negative correlation of .13 between the two sets of scores, which is obviously low even though it is highly reliable ($p < .001$) with that large a number of subjects.

Hundleby (1968) collected scores on the Primary Test of Mental Abilities (PTMA) from 203 adolescents, 117 of them in public schools in a small Illinois town, the rest in institutions in Illinois and Indiana. He also collected school grades in reading, arithmetic, and conduct from the public school sample. Hundleby's measure of anxiety was a set of objective tests devised by R. B. Cattell and his associates (Cattell & Warburton, 1967) and identified by factor analysis. The battery, labeled "Universal Index 24: Unbound Anxiety versus Good Adjustment," includes such diverse indicators as handwriting pressure, use of rhymes in a word association test, susceptibility to distraction w[illegible]le performing a motoric task, and the number of personal frailties admitted. (It is relevant here to note that the admission of frailties may also be indicative of low self-esteem.) Hundleby found negative correlations in the .40s between anxiety and PTMA scores and in the

.20s between anxiety and grades in school.

Douglas and Ross (1968) used self-reports of tension and teachers' ratings of symptomatology to measure the anxiety levels of 4,000 English 15-year-olds, finding that both kinds of measures correlate negatively with standard achievement tests in reading and arithmetic.

Dudek and Lester (n.d.) also found an association between high anxiety and low academic achievement. They identified under- and normal achievers among 13- to 17-year-old middle-class children; the former were two years or more behind their agemates in school despite tested intelligence in the normal range, and the latter were a group of adolescents attending an urban high school where they earned passing but not outstanding grades. The measure of anxiety here was a qualitative analysis of Rorschach responses. Dudek and Lester's findings are especially interesting for what they observe in connection with the anxiety:

> The inference from these findings would be that the underachievers experience a blocking of oral aggressive energy, whereas the normal achievers have no difficulty being aggressive, demanding and orally incorporative... The passivity (of the underachiever) has a quality

of resistance and hostility. (p. 10)

> The core area of anxiety centers around the handling of aggressive impulses, and the characteristic mode of defense appears to be a retreat into passivity, compliance, reaction formation, and depression: the characteristic "good child persona." The proportion using this defense appears to be significantly greater than would be found in a control sample of normal achievers. (p. 12)

We note that these researchers attribute defensive maneuvering to scholastic failures, but of a very different kind from delinquent behavior, and that anxiety seems to be a marked component of their experience. According to our theory, a delinquent defense would be more effective for reducing the anxiety of some students.

Disruptive, Delinquent Behavior and Anxiety

We have suggested that, because delinquency is an effective defense against a derogated self-image, it should be negatively related to anxiety. Relevant data on this point are sparse, and it must be admitted that theory itself is ambiguous on this point. The ambiguity arises over the matter of signal anxiety, that kind or amount of apprehension that emanates from dangerous

situations -- in this case, those situations that threaten failure and further derogation of the self-image. Is this anxiety felt consciously by a youth or is it barred from awareness? Is it distinguishable from the chronic discomfort of unconscious low self-esteem or does it so supplement that chronic condition that the whole complex threatens to break into consciousness? Perhaps if these questions could be answered, then the kinds of measures and data needed to test this part of the theory would be clearer and the extant data would fall into some order. But the theory is not yet clear on these issues and so at this point we have to present what seem to be the relevant data without actually being sure that they address the hypothesis appropriately.

Davies and Maliphant (1971) asked teachers at a boys' boarding school in England to nominate "refractory" students and identified 30 whom at least four out of six teachers named. Thirty boys who were never so nominated were matched with the refractory boys for age and form (grade) in school. Davies and Maliphant relied on base heart rate and changes in heart rate with the introduction of stress conditions to measure anxiety. They recognized that heart rates depend upon

a great many variables -- size, nutrition, age, recent activity -- and they chose their research site and their subjects to minimize differences among them. (They note that the refractory boys were more likely to be smokers, which would work against the hypothesis that they would have lower base heart rates.) They also note that heart rate is linked operationally to anxiety more by face validity and intuition than by solid evidence. In any case, they found that the refractory boys had lower base heart rates ($p < .005$) and that their heart rates were less reactive to the threat of shock for error or overlong delay in a reaction-time task ($p < .005$). Davies and Maliphant replicated the finding of less reactivity ($p < .04$) in another sample, comparing seven boys attending a public secondary school whom teachers rated as unresponsive to punishment, hostile to authority, dishonest, aggressive, indifferent to adult approval, and generally bad with seven boys whom teachers rated the opposite.

Laycock (1968) also employed an autonomic response to measure anxiety, in this case systolic blood pressure. Laycock's subjects were 83 Scots boys, 14 to 17 years old, whom a court had committed to an "approved school"

(like an American reformatory) but who had not yet been incarcerated and 80 boys residing in working-class areas who had no official record of delinquency. Blood pressure was measured before and after stressful trials of a mirror-drawing task. The systolic blood pressure of significantly more of the delinquents declined ($p < .05$), and the range of their reactivity tended to be smaller ($p < .10$) than that of the controls.

Naar (1964) contributes evidence based on measuring anxiety by experts' ratings of the House-Tree-Person (H-T-P) drawing test. Naar was prompted to conduct this study by Glueck and Glueck's (1950) finding that the Rorschach responses of institutionalized delinquents displayed less anxiety than those of matched "nondelinquent" controls. Naar wanted to determine if another, more efficient method would make the same differentiation. His delinquent group was composed of 30 boys, 14 to 16 years old, incarcerated in a correctional institution in Virginia; 30 nondelinquent boys were selected from an urban public school in an area with a high official delinquency rate, matched with the delinquents in age and tested intelligence. Both of the judges who independently and blindly rated anxiety levels from the H-T-P found <u>fewer</u> signs of anxiety (excessive,

irrelevant detail; hesitant, faint lines; shading) in the delinquents' drawings ($p < .01$ for one judge and $< .05$ for the other).

One of the series of studies by Shore, Massimo, Mack, and Malasky (1968) is informative on the relationship between delinquency and anxiety. They report that TAT stories told by the boys who received the experimental services contained markedly more signs of guilt at the end of treatment than those told by the control group did ($p < .03$). Furthermore, increases in measured guilt were reliably and positively correlated ($p < .05$) with improvement in Metropolitan Achievement Scores. However, both the level of guilt and its correlation with achievement subsided in the years after treatment terminated. If one can equate signs of guilt in this study with manifest anxiety (it is not possible to check the validity of this assumption from the informtion available), the results suggest that effective treatment induces both scholastic improvement and, by disallowing an established delinquent pattern, higher levels of anxiety; but as the provocation to delinquency declines -- the effect of more successful scholastic performance, steady employment, etc., on self-esteem -- anxiety declines. The results further

suggest that one risk of only partially effective treatment is that anxiety will continue to grow in the absence of an effective delinquent solution, perhaps to a degree that generates pathology; and, indeed, one of the ten treated boys had to be hospitalized as a psychotic, while none of the control boys entered a mental institution (Shore & Massimo, 1966).

With delinquency and anxiety measured in different ways in each of these studies, the youth defined as delinquent proved to be in some sense less anxious. We know of no studies with an opposite finding. While this pattern of evidence seems supportive of the theory, still we remain cautious on this point because the theory does not make clear which, if any, of these measures of anxiety are the appropriate ones.

At this point it may be helpful to introduce a diagram (see Figure 1) which will both summarize the partial theory that has been presented and chart its links with the schools as an institution and particularly with alternative educational programs as a promising ameliorative program.

A review of the literature indicates that poor scholastic performance, measured by school grades and standard achievement tests, is related to low self-esteem, measured by nonprojective and projective means,

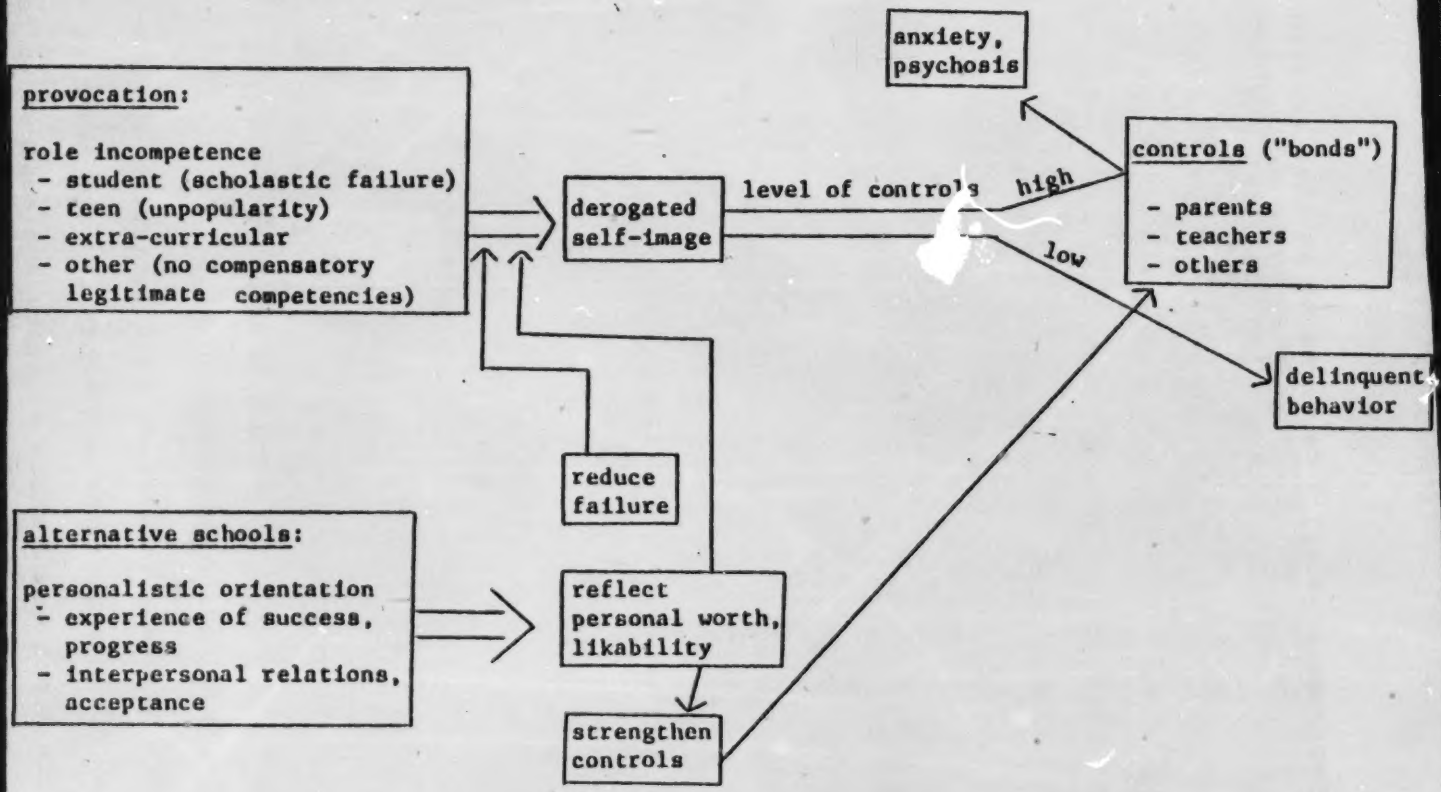

Figure 1. Schema of a partial theory of delinquent behavior and its links to alternative education programs.

and that poor scholastic performance is also related to disruptive, delinquent behavior in school and in the community, whether that behavior is observed and rated by teachers or reported by the youngsters themselves. Furthermore, there is evidence that low self-esteem is associated with higher levels of delinquent behavior, and there is some indication that enhancing self-esteem will reduce that behavior. Poor scholastic performance also has a demonstrable relationship with higher levels of generalized anxiety. Whether disruptive, delinquent behavior may shield adolescents from anxiety is less certain; a negative relationship seems to prevail between the two but the theory and the appropriate measures are not yet precise enough to support a firm conclusion.

A Promising Educational Program

With this partial theory of the etiology of delinquent behavior before us, we can now offer a promising remedy that can be effected by the schools: a certain kind of alternative educational program.

There are many variations in alternative educational programs, depending on the students they are meant to serve, the unmet needs these students are assumed to have,

and the educational theory that links the program to the needs of the students. Our concern is with students who are disruptive in the school and in the community and whose behavior may plausibly be supposed to stem from their failure as students. The theory outlined above suggests the nature of an alternative school program that might reduce disruptive behavior.

We believe that there are two essential ingredients of effective alternative education: significantly increasing the proportion of a youth's experiences of success over failure; and providing a warm, accepting relationship with one or more adults. Both of these point to the need for an individualized program.

In the first place, we hypothesize that an effective program tailors the educational process to the individual in several ways. First, the educational materials and tasks are appropriate to the student's present level of skills. Second, their content appeals to the student's own interests. Third, the student is allowed to master them them at his/her own pace. And fourth, evaluation is based on individual progress -- comparisons being made with the individual's own previous performance, not with norms for age or grade.

In the second place, the social norms that typically govern teacher-student formal role relationships are largely suspended and replaced by more informal, more

interpersonal relations. The differences between role relationships and interpersonal relations have to do with their affective components and with the totality of the participants' personalities in the relationship. Ordinarily, secondary school teachers are encouraged to assume a routine pleasantness toward their students that amounts in effect to affective neutrality. In the interests of fairness, teacher-student relationships are governed by universalistic principles, fairly constant from one student to another. Neither teachers nor students are supposed to take each other's peculiarities into account but rather to submerge them in the enactment of their roles. Interpersonal relations, in contrast, are affectively loaded, participants demonstrating their changing feelings toward one another. And each takes into account the other's individuality in their interactions, rather than holding the other strictly to the rules of a formal relationship. We hypothesize that an effective alternative education teacher will help create a unique relationship with each of his or her students, a relationship into which the teacher infuses a genuine liking and acceptance of the student, but, on the other hand, does not conceal genuine revulsion for some kinds of behavior.

It is hypothesized that a program with these ingredients can break the etiological chain that is identified in the partial theory of delinquent behavior (see Figure 1). It reduces the provocation of school failure by providing successful experiences. Furthermore, the warm, accepting relationship with teachers enhances the student's self-image. And this kind of relationship is conducive to the formation of social bonds that lend strength to the individual's controls over his/her behavior.

Such programs have already evolved, independently of any explicit theory. One finds in descriptions of alternative school programs for delinquent youth emphasis on individualized curricula, ungraded classrooms, personal evaluation, and warm teacher-student relationships. A recent report (Kennedy, Mitchell, Klerman, & Murray, 1976) on the Woodward Day School in Worcester, Massachusetts, is typical:

> ...other programs (for aggressive and other emotionally disturbed children in the Worcester school system have) adopted many of the Woodward Day School features: a controlled small environment, location outside of public school walls, individualized attention, acceptance of deviant behavior, and emphasis on improving the students' self-image. (p.721)

Swidler (1976) describes two alternative high schools in Berkeley, California, in similar terms:

> Group High and Ethnic High avoided teaching students about achievement, about success and failure. They concentrated instead on teaching students self-confidence and self-respect. The first element in increasing students' self-confidence was reducing the inequality of status between teachers and students. Casual, friendly relations between teachers and students lessened students' fear, and made the teachers seem approachable, non-intimidating friends. Students felt important precisely because, as one student put it, "The teachers were really friends with students." A second way to avoid evaluating students, and to build self-confidence, is to construct assignments with few possibilities for failure... (At Group High) Students were praised and rewarded for sharing their ideas with the group; not for having the right answers. Indeed right or wrong answers, correct or incorrect facts and ideas, were subordinated to psychological and socio-emotional considerations. Students were not judged; they were encouraged to develop their individual potential. (p. 220)

But with these, as with other efforts to reduce delinquency, data are rarely collected to test either the effectiveness of the programs or their theoretical

assumptions. So one has to glean hints from the empirical literature on how separate components of the program might work if they were integrated.

One study already reviewed is relevant here. The effective services offered by Massimo to 10 disruptive and delinquent boys (Massimo & Shore, 1963; Shore & Massimo, 1966, 1969; Shore et al., 1968) included the two components we have posited are present in an effective alternative school program: increasing the ratio of success to failure experiences, and establishing warm interpersonal relationships with norm-abiding adults. The worker made particular efforts to ensure that his clients were adequately prepared to take the jobs they went into, that they received guidance and assistance in keeping their jobs if they needed it, and that remedial education was tailored to each individual's needs. Furthermore, personal support was available at all times, day or night, and role rigidity was avoided. It is apparent that, while this program was not a school program, it points a way to effective teacher behavior.

More pertinent perhaps is the Quincy, Illinois, alternative school program described by Bowman (1959). Sixty eighth graders who were performing poorly at their

schoolwork were selected for study; most of them were discipline problems at school and 41 percent of them had police or court records. Three groups of 20 were defined randomly, two of these becoming special classes, the third continuing in the conventional junior high school program. The alternative program differed in several ways from the traditional one. The students spent a larger share of their school day with one teacher who had volunteered to lead the class, who knew the students well, and who was sympathetic toward them. The children were not pushed to achieve; the pace was slow, tailored to their current levels of functioning. "The efforts of the teachers were aimed at making school a pleasant experience; helping pupils learn the basic skills of reading, writing, and arithmetic; helping them learn the practical things they would use in their daily lives; and providing experiences in which they could find some success" (p.59). Clearly it was the intent of the program to maximize success experiences and provide warm interpersonal teacher-student relationships.

The effects of this program were mixed but promising. The students in the alternative program showed neither more nor less gain in achievement scores than did the randomized controls. But their attitudes toward school

improved along with their attendance, relative to the controls. About two years after the program began, official delinquency records were checked again and revealed that the students in the alternative program had had fewer contacts with the police and the offenses for which they were apprehended had become less serious while the control group was exhibiting the opposite trend, as one would expect of youth as they enter their 15th and 16th years. It is not clear from the published reports just what produced the positive changes. It seems not to have been real advances in scholastic abilities, although it seems likely that the students felt that they were making better progress, which psychologically may be more crucial than the objective fact. It also seems likely that social bonds with their teachers grew stronger and were thus able to provide some constraint against antisocial behavior.

We pause here to recall our earlier discussion of the cause-effect relationships between scholastic achievement and delinquent behavior. The reader may remember that the correlation between poor performance and frequent delinquency is well established, but that the causal direction must remain ambiguous until an experiment is done that yields more definitive data.

The Bowman study approximates such an experiment in the rigor of its design, with randomized experimental and control groups and before-after measures. Unfortunately, the independent variable was not effectively manipulated in the experiment; that is, there was no objective improvement in the scholastic achievement of the experimental students. Neither is it clear whether these students believed their performance was improving. If we can assume that the latter had occurred, then the Bowman study lends support to the hypothesis that subjective experiences of success in school lead to a reduction in delinquent behavior. And one may further assume that in most cases, objective improvement would induce subjective experiences of progress.

The importance of warm interpersonal relations with a socializing adult in the effective treatment of delinquents is underlined by Persons and Pepinsky (1966). Eighty-two boys incarcerated in a state reformatory were selected as appropriate for a combination of group and individual psychotherapy. Half of them were randomly assigned to the treatment group. The authors write that "one of the major objectives of every therapist was to encourage in each boy the development of warm, interpersonal relationships, both with the

therapist and with the other boys in his group" (p. 530).

One of the more immediate effects of the therapeutic program was to raise the level of participants' scholastic performance in the reformatory school: significantly more participants than controls ($p < .05$) made the scholastic honor roll. Another effect was to improve the behavior of the participants so that fewer of them were reported to be disciplinary problems ($p < .01$) and more were granted passes that permitted greater freedom at the institution ($p < .01$) (Persons, 1966). But one might be skeptical about measures of effectiveness taken within the institution where personnel who make decisions are also aware of who is receiving treatment and who is not. More impressive are the differential records compiled by the randomized groups after they were released: after the same amount of time on the outside, 61 percent of the controls were reinstitutionalized for delinquent behavior compared to 32 percent of those treated ($p < .01$) (Persons, 1967).

In summarizing their findings, Persons and Pepinsky (1966) refer to a body of research on the effectiveness of psychotherapy that we believe is relevant to the design of alternative school programs:

> The qualities of their therapists that the boys considered to be important have been previously discussed by Truax (1963) as central to psychoanalytic, client-centered, and eclectic psychotherapy. Truax has underscored that the therapist needs to understand sensitively and accurately the patient's experiences, and that he be mature, integrated, and genuine within the relationship. (p. 332)

Forward, Kirby, and Wilson (1974) also find that the establishment of interpersonal relationships with disruptive, delinquent adolescents is a key to changing their behavior. They observed 27 boys and girls who had been referred by a juvenile court to a program that provided adult volunteers to work with them on a one-to-one basis. The researchers administered a questionnaire to the youngsters that had been devised by Barrett-Lennard (1962) to measure therapist-client relations in formal psychotherapy. They found that youngsters who perceived their volunteers as unconditionally accepting and genuinely affectionate had significantly lower rates of recidivism ($p < .05$).

One might question this finding, if it stood alone, on the ground that delinquents with a greater potential for change might elicit accepting, affectionate behavior from adults, causation being then in the opposite direction

from the one supposed by the researchers. But in the context of other research such as Persons and Pepinsky's (described above), the importance of the volunteers' orientation seems more plausible.

Summary

A partial theory of delinquent behavior has been presented that conceptualizes delinquency as a psychological defense against a derogated self-image. The theory identifies failure in the role of student as a major threat to the self-image and thus implicates the schools as an institution as a significant provoker of delinquent behavior. Concomitantly, the schools are recognized as an institution with great potential for reducing delinquency, and a specific sort of alternative educational program is described that might effectively implement the schools' potential.

What needs to be done now is experimentation. The effective ingredients hypothesized for alternative school programs have to be realized in concrete programs. Administrative orientations have to be changed, teachers selected and trained, learning materials assembled, sites established, and students identified. The programs have to be permitted a shakedown cruise before they are evaluated.

Then evaluations should take the form of rigorous field experiments that not only assess the degree to which the programs reach their goals of delinquency reduction but also test whether the theory is valid. That is, an experiment must first determine whether a program actually raises the ratio of scholastic successes over failures and actually establishes warmer interpersonal relationships between students and teachers than those in the conventional schools available to the youth. Then the research should determine whether these elements actually affect students' self-esteem. Finally, the research should observe whether raising levels of self-esteem, especially on unconscious levels, lowers delinquent behavior.

In the process of implementing alternative programs and performing the experiments, several practical questions will have to be addressed for which the theory does not suggest answers. One is where an alternative program should be located: whether in close contact with a conventional secondary school or isolated from it. On the one hand, affinity with a conventional school may be desirable to facilitate reentry of students to the mainstream, with which they should learn to cope and to which they eventually will have to return, if not in school, then later in employment. On the other hand, the desirability of building esprit among the students and

staff of an alternative school and the problems of dealing with the students' behavior at least early on in their experience with the program favors relative isolation.

Another question has to do with the identification and recruitment of students. Should students be assigned to the alternative programs as they are typically assigned to a homeroom or one of several English classes, or should their recruitment be entirely voluntary? Should the program recruit problem students exclusively or should there be a mix of prosocial and antisocial students? Involved in these questions are issues of labeling and stigmatization, and the potential effectiveness of imposed intervention, however benign.

A third question has to do with program failures. How far and for how long can an alternative school tolerate a recalcitrant youth? Can gradations of inclusion-exclusion be established within a program so that differences among students can be accomodated? What is the next alternative to an alternative program? Should the power to exclude a youth from a school system, i.e., from public education, rest with the school system or should it be exercised by the juvenile justice system?

These questions are obviously beyond the immediate scope of the theory. But the theory sets some conditions

for appropriate answers, specifically that solutions conducive to reform, of individuals and of institutions, will take into account their effect on youth's self-esteem and their potential for helping youth find a respectable place in their community and society. Variations in the designs of alternative school programs can be systematically introduced and evaluated in terms of these goals.

References

Aronson, E., & Mettee, D. R. Dishonest behavior as a function of differential levels of induced self-esteem. Journal of Personality and Social Psychology, 1968, 9, 121-127.

Bachman, J. G. Youth in transition: Volume II. The impact of family background and intelligence on tenth grade boys. Ann Arbor: Institute for Social Research, 1970.

Barrett, Lennard, R. Dimensions of therapist response as causal factors in therapeutic change. Psychological Monographs, 1962, 76, 43.

Bennett, V. D. C. An investigation of the relationships among children's self-concept, achievement, intelligence, body size, and the size of their figure drawing. Unpublished manuscript, no date.

Bledsoe, J. C. Self-concepts of children and their intelligence, achievement, interests, and anxiety. Journal of Individual Psychology, 1964, 20, 55-58.

Bowman, P. H. Effects of a revised school program on potential delinquents. Annals of the American Academy of Political and Social Science, 1959, 322, 53-62.

Cattell, R. B., & Warburton, F. W. Objective personality and motivation tests. Urbana: University of Illinois Press, 1967.

Cobb, S., Brooks, G. H., Kasl, S. V., & Connelly, W. E. The health of people changing jobs: A description of a longitudinal study. American Journal of Public Health, 1966, 56, 1476-1481.

Cohen, A. Delinquent boys: The culture of the gang. New York: Free Press, 1955.

Coleman, J. S. The adolescent society. New York: Free Press, 1961.

Davies, J. G. V., & Maliphant, R. Autonomic responses of male adolescents exhibiting refractory behavior in school. Journal of Child Psychology and Psychiatry, 1971, 12, 115-127.

Douglas, J. W. B., & Ross, J. M. Adjustment and educational progress. British Journal of Child Psychology, 1968, 38, 2-4.

Dudek, S. Z., & Lester, E. P. The good child facade in chronic underachievers. Unpublished manuscript, McGill University, Department of Psychiatry, no date.

Entwistle, N. J., & Cunningham, S. Neuroticism and school attainment -- a linear relationship? British Journal of Educational Psychology, 1968, 38, 123-132.

Epps, E. G. Family and achievement: A study of the relations of family background to achievement orientation and performance among urban Negro high school students. Ann Arbor, Mich.: Institute for Social Research, 1969.

Farrington, D. P., & West, D. J. A comparison between early delinquents and young aggressives. The British Journal of Criminology, 1971, 11, 341-358.

Feldhusen, J. F., Denny, T., & Condon, C. F. Anxiety, divergent thinking, and achievement. Journal of Educational Psychology, 1965, 56, 40-45.

Feldhusen, J. F., Thurston, J. R., & Benning, J. J. Classroom behavior, intelligence, and achievement. Journal of Experimental Education, 1967, 36, 82-87.

Feldhusen, J. F., Thurston, J. R., & Benning, J. J. Prediction of academic achievement of children who display aggressive-disruptive classroom behavior. Paper presented at the annual meeting of the American Educational Research Association, New York, 1971.

Fitts, W. H. Tennessee Self Concept Scale: Manual. Nashville, Tenn.: Counselor Records and Tests, 1965.

Forward, J. R., Kirby, M., & Wilson, K. Volunteer intervention with court-diverted juveniles. Unpublished manuscript, University of Colorado, Department of Psychology, 1974.

Freud, A. The ego and mechanisms of defense. New York: International Universities Press, 1946.

Glasser, W. Schools without failure. New York: Harper and Row, 1969.

Glueck, S., & Glueck, E. Unraveling juvenile delinquency. Cambridge, Mass.: Harvard University Press, 1950.

Gold, M. Delinquent behavior in an American city. Belmont, Calif.: Brooks/Cole, 1970.

Gold, M., & Mann, D. Delinquency as defense. American Journal of Orthopsychiatry, 1972, 42, 463-479.

Gold, M., & Reimer, D. Changing patterns of delinquent behavior among Americans 13 through 16 years old: 1967-72. Crime and Delinquency Literature, 1975, 7, 483-517.

Hundleby, J. D. The trait of anxiety as defined by objective performance measures and indices of emotional disturbance in middle childhood. Multivariate Behavioral Research, 1968, Special Issue, 7-14.

Jacobson, E. Denial and repression. Journal of the American Psychoanalytic Association, 1957, 5, 61-92.

Kaplan, H. B. Self-attitudes and deviant response. Social Forces, 1976, 54, 788-801.

Kennedy, J., Mitchell, J. R., Klerman, L. V., & Murray, A. A day school approach to aggressive adolescents. Child Welfare, 1976, 55, 712-724.

Laycock, A. L. Vascular change under stress in delinquents and controls. British Journal of Criminology, 1968, 8, 64-69.

Mann, D. When delinquency is defensive: Self-esteem and deviant behavior. Unpublished doctoral dissertation, The University of Michigan, 1976.

Massimo, J., & Shore, M. The effectiveness of a comprehensive, vocationally oriented psychotherapeutic program for adolescent delinquent boys. American Journal of Orthopsychiatry, 1963, 33, 634-642.

Narr, R. An attempt to differentiate delinquents from non-delinquents on the basis of projective drawings. Journal of Criminal Law, Criminology, and Police Science, 1964, 55, 107-110.

Persons, R. W. Psychological and behavioral change in delinquents following psychotherapy. Journal of Clinical Psychology, 1966, 22, 337-340.

Persons, R. W. The relationship between psychotherapy with institutionalized boys and subsequent community adjustment. Journal of Consulting Psychology, 1967, 31, 137-141.

Persons, R. W., & Pepinsky, H. B. Convergence in psychotherapy with delinquent boys. Journal of Counseling Psychology, 1966, 13, 329-334.

Piliavin, I., & Briar, S. Police encounters with juveniles. American Journal of Sociology, 1964, 70, 206-214.

Rosenberg, M. Society and the adolescent self-image. Princeton, N. J.: Princeton University Press, 1965.

Sarason, S. B., Davidson, K. S., Lighthall, F. F., Waite, R. R., & Ruebush, B. K. Anxiety in elementary school children. New York: Wiley, 1960.

Shore, M. F., & Massimo, J. L. Comprehensive vocationally oriented psychotherapy for adolescent delinquent boys: A follow-up study. American Journal of Orthopsychiatry, 1966, 36, 609-615.

Shore, M. F., & Massimo, J. L. Five years later: A follow-up study of comprehensive vocationally oriented psychotherapy. American Journal of Orthopsychiatry, 1969, 39, 769-773.

Shore, M. F., Massimo, J. L., Mack, R., & Malasky, C. Studies of psychotherapeutic change in adolescent delinquent boys: The role of guilt. Psychotherapy: Theory, Research and Practice, 1968, 5, 85-88.

Short, J. F., Jr., & Strodtbeck, F. L. Group process and gang delinquency. Chicago: University of Chicago Press, 1965.

Swidler, A. What free schools teach. Social Problems, 1976, 24, 214-227.

Swift, M., & Spivack, G. The assessment of achievement-related classroom behavior. Journal of Special Education, 1968, 2, 137-153.

Truax, C. B. Effective ingredients in psychotherapy: An approach to unraveling the patient-therapist interaction. Journal of Counseling Psychology, 1963, 10, 256-263.

Weinberg, C. Achievement and school attitudes of adolescent boys as related to behavior and occupational status of families. Social Forces, 1964, 42, 462-466.

Williams, R. L., & Cole, S. Self-concept and school adjustment. Personnel and Guidance Journal, 1968, 46, 478-481.

Ziller, R., Hagey, J., Smith, M., & Long, B. Self-esteem: A self-social construct. Journal of Consulting and Clinical Psychology, 1969, 33, 84-95.